United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,680	01/21/2004	Osamu Kobayashi	GENSP047	5247

22434　　7590　　03/08/2007			EXAMINER
BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			SHAIFER HARRIMAN, DANT B

ART UNIT	PAPER NUMBER
2109	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *See Continuation Sheet*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1/03/2007
　　　　　　　　　　10/25/2006
　　　　　　　　　　10/04/2006
　　　　　　　　　　08/28/2006
　　　　　　　　　　05/15/2006
　　　　　　　　　　04/18/2006
　　　　　　　　　　02/06/2006
　　　　　　　　　　02/01/2005

DETAILED ACTION

Specification

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a) because they fail to show

306 & 404 as described in the specification. Any structural detail that is essential for a

proper understanding of the disclosed invention should be shown in the drawing. MPEP

§ 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required

in reply to the Office action to avoid abandonment of the application. Any amended

replacement-drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2.   Claim #4 objected to under 37 CFR 1.75(c), as being of improper dependent

form for failing to further limit the subject matter of a previous claim.. Applicant is

required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

dependent form, or rewrite the claim(s) in independent form. Claim #4 is objected to

because it doesn't further limit claim 3 a control signal having any of a Vsync, Hsync, or

CNTL3 in combination with a data packet would be associated inherently with a control

packet.

3.   Claim #4 objected to because of the following informalities: the phrase " an

particular control packet," contains grammatical error, and should be replaced with " a

particular control packet." Appropriate correction is required.

4.   Claim #15 objected to because of the following informalities: the phrase " an

particular control value," contains grammatical error, and should be replaced with " a

particular control value." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter, which the applicant regards as his invention.

5.   Claims 3, 4, 5 and 7-16 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

The limitation contained in Claims 5 & 16, "vice – versa" is vague and indefinite.

One of ordinary skill in the art would not know, for example, whether the applicant

means encrypted or decrypted and whether or not CNTL3 is active or not active when

encrypting or decrypting. For the purposes of examination, the examiner will treat the

limitation as CNTL3 being active and "vice – versa," as decrypting the data packet.

Claim # 7 is vague and indefinite, because when comparing the "data packets"

referenced in claim #6 to "audio/video" data packets referenced in claim #7; are they

both the same data packet or packets; or does the source/encryption and

sink/decryption operate on "audio/video" data packets additionally.

Claim # 8 is vague and indefinite, because one would not know whether the

video data packets of claim #7 are the same data packets that are processed in the

same manner as those data packets in claim #6.

Claim # 12 is vague and indefinite, because the "computer code for forming data

packets at the source," "computer code for encrypting," " computer code for

transmitting," "computer code for decrypting," " computer code for accessing decrypted

data." One of ordinary skill in the art would not know whether or not if "computer code

for," were pertaining to the same computer program or a different computer program

with a different program function.

Claim #4, " a particular control packet" is vague and indefinite because it is

unclear how "a particular control packet" differs from "a control packet."

Claim #15 " a particular control value CNTL3" is vague and indefinite because it

is unclear how "a particular control value CNTL3" differs from "a control value CNTL3."

Claim #3 recites the limitation "the encryption/decryption control signals," there is

insufficient antecedent basis for this limitation.

Claim #14 recites the limitation "the encryption control signals," there is

insufficient antecedent basis for this limitation.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

13. Claims 6-11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non- statutory subject matter. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or act to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*. Each limitation of the above claims is drawn towards software per se, which is clearly non-statutory subject matter.

Claims 6 and 7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims(s) **6, 7** are directed to the encryption/decryption value generator randomly selects which data packets to encrypt/decrypt that are being formed at the source device and encrypted and then being sent to the sink device for decryption of data packets. The source unit could be an audio/video unit that is arranged in such a manner to provide audio/video data packets.

This claimed subject matter lacks a practical application of a judicial exception (abstract idea) since it fails to produce a useful, concrete and tangible result.

Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for the source and sink are arranged to encrypt/decrypted the data packets and or audio/video data packets. This

produced result remains in the abstract and, thus, fails to achieve the required status of having

real world value.

15.   Claims 12 - 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. The claims lack the necessary physical articles or objects to

constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a

series of steps or act to be a process nor are they a combination of chemical compounds to be a

composition of matter. As such, they fail to fall within a statutory category. They are, at best,

functional descriptive material *per se*. Each limitation of the above claims is drawn towards

software per se, which is clearly non-statutory subject matter.

Claim 12-16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter. The claims are directed to computer code for forming, encrypting,

transmitting, and decrypting, accessing, storing of data packets within a self contained

sink/source device.

This claimed subject matter lacks a practical application of a judicial exception (law of

nature, abstract idea, naturally occurring phenomenon) since it fails to produce a useful, concrete

and tangible result.

Specifically, the claimed subject matter does not produce a tangible result because the

claimed subject matter fails to produce a result that is limited to having real world value rather

than a result that may be interpreted to be abstract in nature as, for example, a thought, a

computation, or manipulated data. More specifically, the claimed subject matter provides for

transmitting and accessing within a closed system. This produced result remains in the abstract

and, thus, fails to achieve the required status of having real world value.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claim # 1, #6, #12 rejected under 35 U.S.C. 102(b) as being taught by TRAW et

al. (PGPub. # 2002/0007452 A1)

Traw teaches:

Claim #1:

" A packet based high bandwidth copy protection method comprising: forming a number

of data packets at a source device;

        encrypting the data packets based upon a set of encryption values (paragraphs

        43, 76); transmitting the encrypted data packets from the source device to a sink

        device coupled thereto (paragraphs 41, 76); decrypting the encrypted data

packets based in part upon the encryption values (paragraphs 41, 76); and

accessing the decrypted data packets by the sink device" (paragraphs 41, 76).

Claim #6: The system of Traw et al., which practices the method of claim 1, is

equivalent to the system of claim 6.

Claim # 12

" Computer program product for providing a packet based high bandwidth copy

protection, comprising:

computer code for forming a number of data packets at a source device

(paragraphs 048, 131, 140);

computer code for encrypting the data packets based upon a set of encryption

values(paragraphs 048, 131, 140);

computer code for transmitting the encrypting data packets from the source

device to a sink device coupled thereto (paragraphs 048, 131, 140);

computer code for decrypting the encrypted data packets by the sink device;

and

computer readable medium for storing the computer code" (paragraphs 048, 131,

140).

6.   Claims: #1 #2, #6, #7, #8 are rejected under 35 U.S.C. 102(e) as being taught

by Faber (Pat. # 6477252 B1)

Faber teaches:

Claim # 1

" A packet based high bandwidth copy protection method comprising: forming a number of data packets at a source device (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28);

encrypting the data packets based upon a set of encryption values (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28);

transmitting the encrypted data packets from the source device to a sink device coupled thereto (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28) ; decrypting the encrypted data packets based in part upon the encryption values (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28); and accessing the decrypted data packets by the sink device," (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28).

Claim # 2:

" A method as recited in claim # 1, wherein the source device is a video source and wherein the sink device is a video display and wherein the number of data packets included some audio data packets and some video data packets," (Column 1, lines 47 through 55).

Claim #6: " A system for providing high bandwidth copy protection in a packet based system, comprising:

A source unit arranged to provide a number of data packets (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28);

A sink unit coupled to the source unit arranged to receive the data packets form the source unit (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28);

An encryption unit coupled to the source unit arranged to encrypt selected ones of the data packets sent from the source unit to the sink unit (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28);

A decryption unit coupled to the sink unit arranged to decrypt the encrypted data packets (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28); and

An encryption/decryption values generator arranged to provide a set of encryption/decryption values used to encrypt and decrypt the appropriate data packets," (Column 1, lines 47-49), (Column 2, lines 66 – 67 & Column 3, lines 1-28)

Claims #7:

"A system as recited in Claim 6, wherein the source unit is an audio/video unit arranged to provide audio type data packets and/or video type data packets," (Column 1, lines 48 –50, a video source device provides a basis value to a symmetric ciphering/deciphering process to a video sink device, to which the video source device is to provide video content.)

The examiner further notes that the system of Claim #7 is the implementation of

the method, through the analysis of logic and reasoning claim # 2 was rejected and thus

claim #7 is rejected.

Claim # 8:

" A system as recited in claim #7, wherein the sink unit is display unit arranged to

display processed ones of the video data packets," (Column 1, lines 51 –54), the video

source device ciphers the video content for transmission to the video sink device,

including generation of a first cipher key through functional transformation of the basis

value.

The examiner further notes that the system of Claim #8 is the implementation of

the method, through the analysis of logic and reasoning claim # 2 was rejected and thus

claim #8 is rejected.

7.   Claims: #1, #2, #3, #4, #5,#6,#7,#8,#9,#10, #11, #12, #13, #14, #15, #16 are

rejected under 35 U.S.C. 102(e) as being taught by Pasqualino (PGPub. #

2002/0163598 A1).

Pasqualino teaches:

Claim #1:

" A packet based high bandwidth copy protection method comprising: forming a number

of data packets at a source device;

        encrypting the data packets based upon a set of encryption values;

transmitting the encrypted data packets from the source device to a sink device coupled thereto", (Paragraphs: 53, 59; the examiner notes that the decrypting the encrypted data packets based in part upon the encryption values; and accessing the decrypted data packets by the sink device.

The examiner further notes, that the method of claim # 1 is being implemented by software, thus it is inherent that the software would be provided in a computer program product and therefore claim #12 is anticipated.

Claim # 2:

" A method as recited in claim 1, wherein the source device is a video source and wherein the sink device is a video display and wherein the number of data packets include some audio data packets and some video data packets," (Abstract, Paragraph 47 the system of the present invention assists in providing a digital interface between a video generation device and a display device. (For example, a PC, DVD Player etc.))

The examiner further notes, that the method of claim # 2 is being implemented by software, thus it is inherent that the software would be provided in a computer program product and therefore claim #13 is anticipated.

Claim #3:

"A method as recited in claim #2, wherein the encryption/decryption control signals include Vsync, Hsync, and a CNTL3," (paragraphs: 9, 10,57, 59,82,93,95, & diagrams 2 –3, the examiner further notes that Vsync, Hsync, and a CNTL3 are all control or timing-signals that can be used in, communicating data over a communications link as well as

encryption/decryption of data packets according to HDCP if it were employed by the

reference, which would mirror applicants claimed invention.)

The examiner further notes, that the method of claim # 3 is being implemented by

software, thus it is inherent that the software would be provided in a computer program

product and therefore claim #14 is anticipated.

Claim #4:   " A method as recited in claim 3, wherein each of the data packet is associated with

an particular control packet," (Paragraph 0095 in one embodiment, the reformatter adapts

ctl3 signal in such a manner as to be compliant with HDCP while transporting an audio

data (or auxiliary data) stream as provided below.)

The examiner further notes, that the method of claim # 4 is being implemented by

software, thus it is inherent that the software would be provided in a computer program

product and therefore claim #15 is anticipated.

Claim #5:

" A method as recited in Claim # 4, wherein when the CNTL3 is active, then the

corresponding data packet is encrypted and vice-versa," (paragraph, 095 & diagrams 2

–3, the examiner notes that CTL3 is a timing signal, and that it supports the

encrypted/decrypted data packets according to HDCP if it were employed by the

reference, which would mirror applicants claimed invention.)

The examiner further notes, that the method of claim # 5 is being implemented by software, thus it is inherent that the software would be provided in a computer program product and therefore claim #16 is anticipated.

Claim # 6: " A packet based high bandwidth copy protection method comprising: forming a number of data packets at a source device;

encrypting the data packets based upon a set of encryption values;

transmitting the encrypted data packets from the source device to a sink device coupled thereto", (Paragraphs: 53, 59; the examiner notes that Pasqualino can be implement or is optional with HDCP, HDCP is a encryption/decryption method of protecting data over unsecured networks, thus embodies the applicants claimed invention.

Claim # 7: "a system as recited in claim 6, wherein the source unit is an audio/video unit arranged to provide audio type data packets and/or video type data packets," is anticipated by (paragraph 0047).

Claim # 8: " a system as recited in claim 7, wherein the sink unit is a display unit arranged to display processed ones of the video data packets," (paragraph 0059, on the receiver or sink side, a DVI 1.0 receiver feeds recovered streams into a frame reformatter. The reformatter communicating with video and audio layers respectively, splits out the audio and the video data respectively.

Claim # 9: " a system as recited in claim 8, wherein the display unit includes a number

of speakers arranged to transmit audio signals based upon processed ones of the audio

data packets," is anticipated by display unit (paragraph 0047) includes a number of

speakers (paragraph 0065) arranged to transmit audio signals based upon audio data

packets (paragraph 0065)."

Examiner notes, DVAA enables Pasqualino to teach a display unit that has speakers

because it is the representative of the standard for use in the consumer industry for

transmitting high quality, multi-channel audio and auxiliary data over a digital video link.

Claim #10: " A system as recited in claim 9, wherein the set of encryption/decryption

control signals include Vsynh, Hsynch, corresponding to the video data packets," is

anticipated by (paragraph 0082, Figure 4 is organized such that the Hsync signal,

generally designated 404, occurs on the left side of the diagram and the Vsync signal,

generally designated 406, occurs at the top. This is done to support the HDCP

specification.

Claim # 11 " A system as recited in claim 10, wherein the set of encryption/decryption

control signal further includes CNTL3 to flag those data packets that are encrypted," is

anticipated by (paragraph 0095, Figure 4 is organized such that the Hsync signal,

generally designated 404, occurs on the left side of the diagram and the Vsync signal,

generally designated 406, occurs at the top. This is done to support the HDCP

specification).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dant B. Shaifer - Harriman whose telephone number is

571-272-7910. The examiner can normally be reached on Monday - Thursday: 8:00am

- 5:30pm Alt.Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JOSEPH DEL SOLE
SUPERVISORY PATENT EXAMINER

3/2/07